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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/766,439	01/28/2004	Robert Novak	CRNG.048	3597

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EXAMINER	
VINCENT, SEAN E	

ART UNIT	PAPER NUMBER
1731	

DATE MAILED: 11/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/766,439	NOVAK, ROBERT	
	Examiner	Art Unit	
	Sean E. Vincent	1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-22 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-22 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 20 August 2004 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 5, 11, 14, 19 and 21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

3. The language of the claims has been amended to state that the ratio is 'as small as approximately 0.9 to and as great as approximately 1.1'. This language was absent from the originally filed disclosure.

4. Claims 5, 11, 14, 19 and 21 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for 'approximately 0.9 to approximately 1.1'does not reasonably provide enablement for 'as small as approximately 0.9 to and as great as approximately 1.1'. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims. Applicant's newly filed arguments would suggest that the amended language does not read on a ratio of 1. If this is the case, the scope of the claims is then not commensurate in scope with the originally filed disclosure.

5. Claims 5, 11, 14, 19 and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear what the recitation 'as small as approximately 0.9 to and as great as approximately 1.1' really means. It might denote a range of values from 09. to 1.1 or it might denote two discreet values 0.9 and 1.1.

Claim Rejections - 35 USC § 102

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 1, 3, 5 and 12-22 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Dockerty (US 3338696). Dockerty taught in the figures and in cols. 1-5 methods and apparatus for making drawn glass sheets with uniform thickness across its width by controlling the amount of glass flowing over the sides of the trough. A tilting cam 16 was used to make fine adjustments in glass flowing over the sides of the trough and the trough was designed to overflow glass in a uniform thickness over its sides. In discussing problems with the previously known processes and systems, Dockerty explained the deleterious effect of a surge of glass moving along the trough. Thus, Dockerty anticipates the avoidance of horizontal movement of the glass. "Uniform thickness" is deemed to anticipate a maintained mass ratio of 1.0.

8. Measurement, per se, is necessarily part of the disclosure of Dockerty. Dockerty presents a means and a method to correct known heterogeneity in the thickness across the width of the drawn glass sheet. A thickness measurement would have to be made if the disclosure of

Dockerty is assumed to be operable. Any thickness measurement would inherently be a mass measurement if the glass itself is of uniform composition.

9. Claims 1, 2, and 4-11 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Pitbladdo (US 2004/0154336 A1 –priority for thermocouple and controls comes from provisional application 60/505,302 filed September 23, 2003).

10. Pitbladdo taught methods and apparatus for making drawn glass sheets having uniform thickness across its width. Temperature was measured at several locations along the length of the overflow trough (see figures 48-50, abstract, [0330] to [0336], claims 16, 17 and 47-74). Measured temperatures were used in a 'precise thermal control system' that used heating and/or air cooling to maintain uniform viscosity across the width of the drawn glass sheet (see [0264] to [0317]). Pitbladdo's teaching of maintaining uniform viscosity is deemed to anticipate a maintained viscosity ratio of 1.0.

11. It is the position of the examiner that measurement and control of glass temperature would necessarily control glass viscosity. Further, claimed measurement at two sides would read on the measurement of several points along the length of the trough (effectively, across the width of the glass sheet).

Response to Arguments

12. Applicant's arguments filed August 22, 2005 have been fully considered but they are not persuasive.

13. In response to the argument that "the absence from the reference of any claimed element negates anticipation", the examiner disagrees. The applicant should review MPEP 2112.

14. In response to the argument that Dockerty did not teach measuring, the examiner must note that disclosure per se is not required. Anticipation requires disclosure *or inherency* (see MPEP 2112). In the applicant's words "With particular regard to claims 2, 3 and 4 there is no disclosure tn Dockerty of the measuring of the viscosity, mass or temperature. While these parameters may be used in calculations, the reference is silent on their measure." It is the position of the examiner that any parameter used in calculations, especially when that parameter is disclosed to be adjusted or corrected, must necessarily be measured. The disclosure of Dockerty simply makes no sense without an *implied* measurement step. Therefore, measurement is inherent in the disclosure of Dockerty.

15. In response to the argument that Dockerty do not meet the "acceptable values" for the thickness ratio, the examiner disagrees. A uniform thickness as disclosed by Dockerty would imply a thickness ratio of approximately 1.0. The argument that Dockerty does not meet the claimed ratio is not well taken because that would mean that the applicant's invention is limited to non-uniform thickness ratios. In reviewing the originally filed specification and claims, it would appear that the applicant's invention was the promotion of uniformity. The 112 rejections presented herein were written to encourage the clarification of this issue. Further, the language "as small as..." and "...as great as..." was not defined in the original disclosure and must be interpreted in is plan language form. As such, the new language doesn't appear to exclude a ratio of 1.0. In addition, Dockerty's disclosure was not limited to uniform thickness embodiments.

16. In response to the argument that Dockerty does not disclose a controller, the examiner disagrees. The applicant's controller 313 of figure 3 is described in paragraph [00390] of the

specification as: " In an example embodiment, a controller 313 is connected to the heating elements 314 (shown through a cutaway of the muffle 307) of the isopipe, the tilting mechanism of the isopipe, and the air tubes of the isopipe. This controller 313 alters the tilt, heating and air flow ***in response to input commands from an operator***, or from feedback from sensors, or both. It is noted that the ***controller 313 may be a known or standard electronic device***, such as a microcomputer or application specific integrated circuit (ASIC) programmed to effect the changes in tilt, heating and air flow. As such, further details of the controller are omitted so as to not obscure the description of the example embodiments." (emphasis added). The controller is not limited to a feedback means or an electrical means in this description. It is the position of the examiner that the claims given their broadest reasonable interpretation read on any mechanical or electrical controller capable of adjusting the tilt of the isopipe, even a simple mechanical means operated by hand.

17. In response to the argument that Pitbladdo did not teach measuring and maintaining a temperature or viscosity of the glass in first and second portions (paraphrased from pages 9 and 10 of the applicant's response), the examiner disagrees. First, the examiner must note that any person of skill in the art would have recognized the relationship between viscosity and temperature in working with molten glass. Applicant's very own claim 4 is an excellent example of this relationship. The viscosity of glass is very rarely measured because it is much easier to measure the temperature of glass than the viscosity. The viscosity of glass is never really controlled per se, but glass temperature is controlled with countless known heating and cooling techniques. Therefore, the argument that lack of the term 'viscosity' in the reference is indicative of a lack of viscosity control is not well taken. To allege that measurement and

control of molten glass temperature does not inherently indicate measurement and control of molten glass viscosity would be to suggest that claim 4 is actually inoperable. The cited portions of Pitbladdo outline the thermal control of Pitbladdo's drawing trough (aka isopipe) using the temperature measurement of several (seven illustrated in figure 49) portions of the glass sheet and localized heating or cooling of multiple portions of the glass sheet.

18. In response to the argument that Pitbladdo did not teach controlling to maintain a viscosity ratio, the examiner disagrees. The disclosure of Pitbladdo and applicant's specification were both concerned with promoting uniformity in viscosity across the width of the glass sheet. As demonstrated above, uniformity would anticipate a ratio of 1.0 and the claims as presented appear to read on this ratio.

Conclusion

19. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

20. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sean E. Vincent whose telephone number is (571) 272-1194. The examiner can normally be reached on M - F (8:30 - 6:00).

22. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven P. Griffin can be reached on (571) 272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

23. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sean E Vincent
Primary Examiner
Art Unit 1731

S Vincent
October 28, 2005